NAME _____ CLASS _____ DATE _____

Practice Masters Level A

9.5 Common Factors

Check your answers online!

Factor each polynomial by finding the GCF.

1. $3x - 12$ _____
2. $8z^2 - 4z$ _____
3. $5x^2 - 5x - 20$ _____
4. $q^6 - q^3$ _____
5. $9x^2 + 36x + 15$ _____
6. $12s^2 - 6s + 8$ _____
7. $100 - 20d^3 + 10d$ _____
8. $7b^4 + 7b^2$ _____
9. $16t^2 + 32t$ _____
10. $60c^3 - 45c^2 + 15c$ _____
11. $2z^4 - z^3 + 5z^2$ _____
12. $24s^4 - 15s^3 + 9s^2$ _____

Write each polynomial as the product of two binomials.

13. $y(y + 2) + 3(y + 2)$ _____
14. $7(w + 6) - x(w + 6)$ _____
15. $(r + 15)t + (r + 15)3$ _____
16. $k(k + 5) - 8(k + 5)$ _____
17. $2x(x - 3) - 5(x - 3)$ _____
18. $11(s - 9) - 3t(s - 9)$ _____
19. $(6 + d)5 - e(6 + d)$ _____
20. $4(p + 9) - t^2(p + 9)$ _____
21. $a(b + 2) - c(b + 2)$ _____
22. $4(m + 3) - n(m + 3)$ _____
23. $2f(3 - g) - 5(3 - g)$ _____
24. $4x(x + 7) - 5(x + 7)$ _____

Factor by grouping.

25. $3a + ax + 3b + bx$ _____
26. $xy - y + 3x - 3$ _____
27. $cd - 3c + 2d - 6$ _____
28. $x^2 + 5x + 3x + 15$ _____
29. $ax + 3x + ay + 3y$ _____
30. $x^2 - 5x - 2x + 10$ _____
31. $y^2 + 5y + 5y + 25$ _____
32. $8x^2 - 6x - 12x + 9$ _____
33. $7t^2 - 21t + 8rt - 24r$ _____
34. $4m + 12 + 3m + 9$ _____